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Cooperating Organizations

UTAH CROP WEATHER

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The crop weather narrative and tables are unavailable for this issue.

Major farm and ranch activities included harvesting alfalfa, small grains, and fruits. Fields are being prepared for fall grain planting. Some ranchers are removing livestock from summer ranges early and others are preparing to move due to poor range conditions. Fires have affected rangeland used for winter feed. Rain is needed to provide winter feed. Scattered showers provided little relief from the drought. Cooler temperatures are reducing stress on crops. There were 7 days suitable for field work.

Spring wheat harvested was 91 percent, ahead of 1999 by 2 points and ahead of the five-year average by 5 points. Barley harvested for grain was 94 percent harvested, ahead of 1999 by 7 points and the average by 7 points. Oats harvested for grain were 72 percent, 10 points ahead of last year and the five-year average by 10 points. Corn tasseled (silked) was 94 percent, behind 1999 by 3 percentage points, but ahead of the 5 year average by 3 points. Corn in dough stage was 41 percent, ahead of 1999 by 4 points and average by 12 points. Corn in dent stage was 8 percent ahead of 1999 by 6 points and the average by 5 points. Corn harvested for silage was 3 percent. Corn height was 90 inches, 5 inches shorter than 1999, but 4 inches ahead of the five-year average. Alfalfa hay third cutting was 55 percent, ahead of 1999 by 22 points and the five-year average by 19 points. Alfalfa seed harvested was 12 percent, 3 points for 1999, and 10 points ahead of the five-year average. Onions harvested were 29 percent, ahead of 1999 by 20 points, and the five-year average by 21 points. Potatoes harvested were 4 percent, ahead of both 1999 and the five-year average by 4 points.

Cattle and calves moved from summer range was 14 percent, ahead of 1999 by 13 points and the average by 12 points. Sheep and lambs moved from summer range were 6 percent. Apples picked were 5 percent, 1 point ahead of the five-year average. Peaches picked were 41 percent, behind 1999 by 1 point and the five-year average by 3 points. Pears picked were 20 percent, behind 1999 by 1 point but ahead of the five-year average by 3 points.

Topsoil moisture was 34 percent very short, 39 percent short, and 27 percent adequate. Subsoil moisture was 39 percent very short, 35 percent short, and 26 percent adequate.

Range and pastures were 21 percent very poor, 42 percent poor, 29 percent fair, and 8 percent good. Irrigation water supplies were 37 percent very short, 36 percent short, and 27 percent adequate. Stock water supplies were 17 percent very short, 43 percent short, 40 percent adequate.

Note: State crop weather narratives are available on the Internet through the NASS Home Page on the World Wide Web at http://www.usda.gov/nass/ or from JAWF at http://www.usda.gov./oce/waob/jawf.

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Thunderstorm Triggers

We have discussed how heating of the earth by the sun produces a layer of warm air just above the earth's surface. Because warm air is buoyant, this layer is very unstable-- poised and straining to move upward. This is analogous to a rock lying on a steep slope. The rock is ready to move and it will roll downhill readily once it has been set in motion. It will, however, lie motionless, even though it is in an unstable condition, until a triggering mechanism starts it moving.

A boy on the slope may trigger the rock, but what are the triggering mechanisms for a thunderstorm? As air circulates, it must move upward to pass over a hill or a mountain range. Rising over the hill starts the upward movement which continues because of the warm air's buoyancy. Thus, it is common to have afternoon thunder showers in the mountains even though there are no showers in the valleys.

Variation in surface cover which lead to "hot spots" in the surface air layer is another triggering mechanism. Thermals tend to develop over warm spots in the earth's surface layer. For example, when I was in Hawaii, I noticed that afternoon clouds frequently developed over each island because the soil was heated quite hot. Yet, there were no clouds over the cooler water. Another example is a plowed field surrounded by cropped fields. The plowed area may be heated enough to trigger a thermal; and if the air is sufficiently moist, a thunderstorm will develop.